APPENDIX D

System Drawings

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

PREPARED BY
URS CONSULTANTS, INC.
SACRAMENTO, CA

JUNE 1997

"RECORD DRAWING"

T:\UST5\PROJ\NEWMA[illegible]\ASBUILT\COVERSHT.DGN

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GENERAL NOTES

1. ENGINEER DOES NOT WARRANT THAT ALL UTILITIES ARE SHOWN, THAT UTILITIES SHOWN EXIST OR THAT UTILITIES SHOWN ARE IN THE LOCATIONS INDICATED. CONTRACTOR SHALL USE EXTREME CAUTION WHEN EXCAVATING FOR PADS, PIPELINES, STRUCTURES AND APPURTENANCES SO AS NOT TO DISTURB EXISTING UTILITIES AND PIPELINES OR UNNECESSARILY DAMAGE SURROUNDING VEGETATION. CONTRACTOR SHALL REROUTE, REPLACE OR, EXTEND OR OTHERWISE ALTER EXISTING UNDERGROUND UTILITIES AND CONDUITS WHICH ARE DISTURBED AS PART OF THIS WORK TO THE ULTIMATE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST TO THE OWNER UNLESS APPROVED BY THE ENGINEER IN ADVANCE. CONTRACTOR SHALL NOTIFY UNDERGROUND SERVICE ALERT AT LEAST 48 HOURS IN ADVANCE OF ANY DIGGING. UNDERGROUND SERVICE ALERT TELEPHONE NUMBER: 1-800-642-2444.

2. NORTH PLANT BENCHMARK (ELEV. 1409.941 FEET) IS A 2" BRASS DISK STAMPED "R. CLARK WILSON, L. S. 3223" LOCATED 3 FEET EAST OF THE WEST END OF A CONCRETE HEADWALL OF A FLOOD CONTROL BRIDGE OVER THE DEVIL CREEK CHANNEL NORTH OF 42nd STREET ON LITTLE MOUNTAIN DRIVE. CITY OF SAN BERNARDINO DESIGNATION A6-13A, SET 1985.

3. WATERMAN (SOUTH) PLANT SITE BENCHMARK (ELEV. 1240.802 FEET) IS A BRASS DISK STAMPED "X-522" LOCATED AT THE SOUTHWEST CORNER OF SIERRA WAY AND MARSHALL BLVD. IN THE TOP OF THE SOUTHEAST CORNER OF A CONCRETE FOUNDATION FOR A LIGHT STANDARD AND OVERHEAD STREET LIGHT; 0.9 FEET WEST OF THE WEST CURB LINE OF SIERRA WAY; 13.9 FEET SOUTH OF THE SOUTH CURBLINE OF MARSHALL BLVD. CITY OF SAN BERNARDINO DESIGNATION A6-2, SET 1972.

4. CONTRACTOR AGREES TO ASSUME RESPONSIBILITY FOR SITE CONDITIONS, TO ENSURE THE SAFETY OF ALL PERSONS AND PROPERTY AFFECTED BY THEIR WORK, AND THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS.

5. CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR PROTECTION OF EXISTING FACILITIES FROM DAMAGE DUE TO CONTRACTOR'S OPERATIONS.

6. CONTRACTOR AGREES TO ENSURE THAT ALL WORK IS PREFORMED IN A MANNER WHICH MINIMIZES DISTURBANCE TO OWNER'S ONGOING ACTIVITIES AT THE SITE. CONTRACTOR SHALL ENFORCE STRICT DISCIPLINE AND GOOD ORDER AMONG IT'S EMPLOYEES AT ALL TIMES. CONTRACTOR SHALL NOT EMPLOY ANY PERSON UNFIT OR UNSKILLED IN ANY PROJECT ASSIGNED TO HIM.

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NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

SHEET INDEX AND GENERAL NOTES

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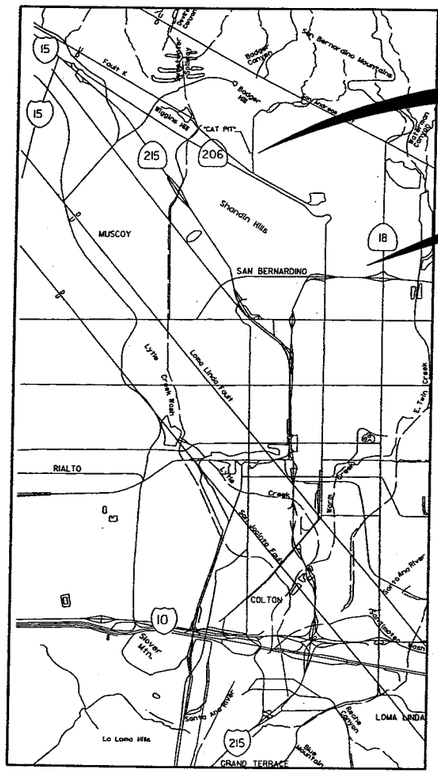
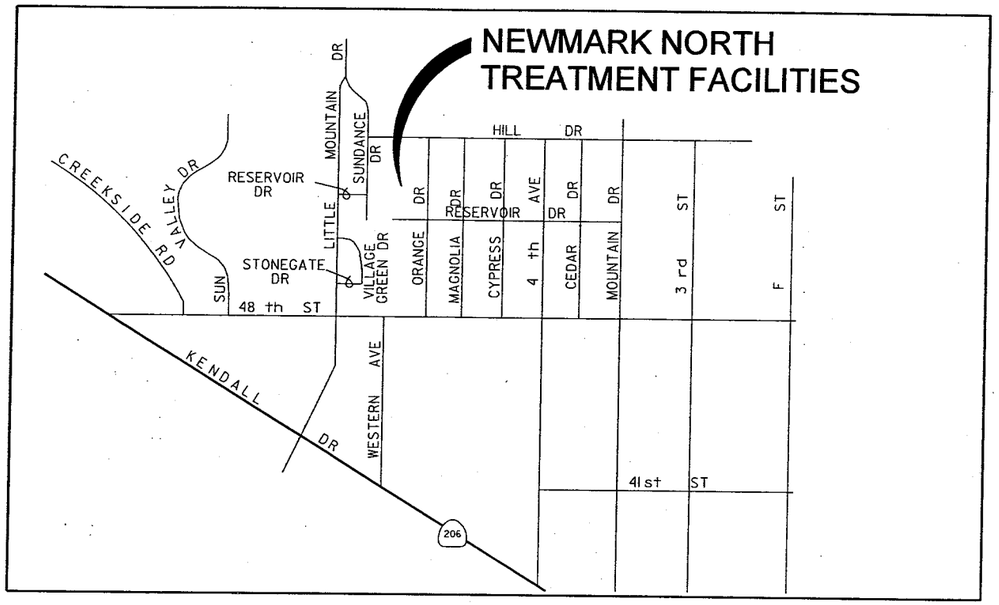
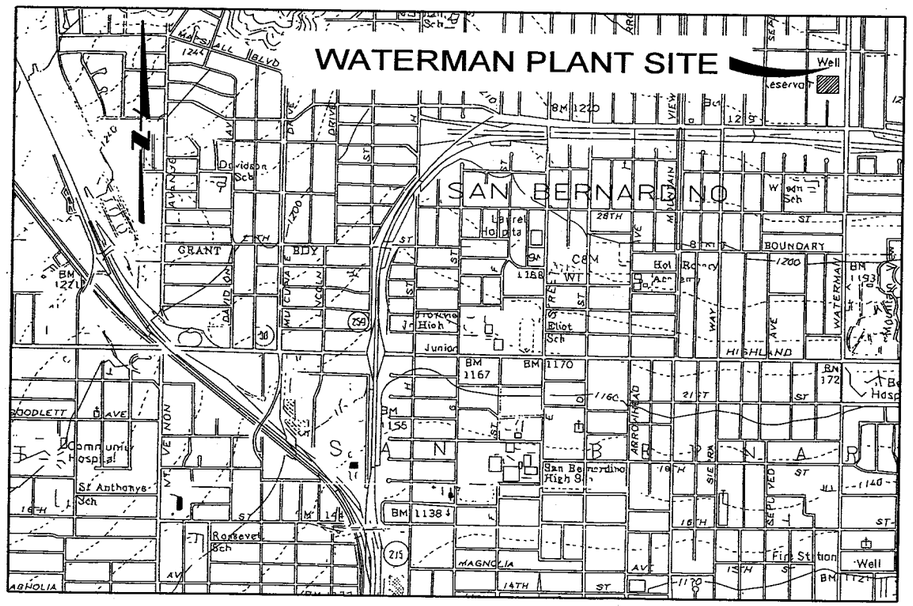


VICINITY MAP



NORTH PLANT

LOCATION MAP



WATERMAN (SOUTH) PLANT

LOCATION MAP

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NEWMARK OU REMEDIAL DESIGN
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NORTH & SOUTH PLANTS

VICINITY AND
LOCATION MAPS

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PIPE LINE SYMBOL IDENTIFICATION

PROCESS LINE

NON-PROCESS LINE OR UTILITY LINE

VALVE SYMBOLS

CLV	CONTROL VALVE
GV	GATE VALVE
BFV	BUTTERFLY VALVE
PCV	PLUG COCK VALVE
GLV	GLOBE VALVE
BV	BALL VALVE
TWV	THREE WAY VALVE
FWV	FOUR WAY VALVE
PIV	PINCH VALVE
PV	PLUG VALVE
CV	CHECK VALVE
NV	NEEDLE VALVE
AV	ANGLE VALVE
VPR	VACUUM/PRESSURE RELIEF
VR	VACUUM RELIEF
PR	PRESSURE RELIEF
SGV	SLIDE GATE VALVE
KGV	KNIFE GATE VALVE
DV	DIAPHRAGM VALVE
BFP	BACKFLOW PREVENTER
PRV	PRESSURE REGULATING VALVE

PIPE FITTING SYMBOLS
(USE FOR INSTALLATION OF ALL MATERIALS)

THREADED FITTING

FLANGED FITTING

WELDED FITTING

BELL & SPIGOT FITTING

SOLVENT WELDED FITTING

PIPE LINE DESIGNATIONS

6"-CS-WM-1"

- NORMAL LINE SIZE
- MATERIAL
- FLUID MEDIUM
- INSULATION THICKNESS

MISCELLANEOUS PIPING COMPONETS

REDUCER (CONCENTRIC)

REDUCER (ECCENTRIC)

DOUBLE FLANGE

DRAIN

UNION

ELBOW UP

ELBOW DOWN

PIPE CAP

PIPE CAP (WELDED)

RUPTURE DISK

EXPANSION JOINT (METAL OR RUBBER)

RUBBER SLEEVE

Y-TYPE STRAINER W/PLUG

Y-TYPE STRAINER W/VALVE

HOSE CONNECTION

QUICK DISCONNECT COUPLING (FEMALE)

QUICK DISCONNECT COUPLING (MALE)

T — TRAP

EQUIPMENT DESIGNATIONS

CENTRIFUGAL PUMP

CENTRIFUGAL FAN

POSITIVE DISPLACEMENT PUMP

ROTARY BLOWER

AIR FILTER

ROTARY LOBE PUMP

PIPING DESIGNATIONS

CI	–	CAST IRON
CS	–	CARBON STEEL
CU	–	COPPER TUBING
PVC	–	POLYVINYL CHLORIDE
PVC8	–	POLYVINYL CHLORIDE SCHEDULE 80
CPVC	–	CHLORNATED POLYVINYL CHLORIDE
SS	–	STAINLESS STEEL
GCS	–	GALVANIZED CARBON STEEL
LCS	–	LINED CARBON STEEL
FS	–	FLEXIBLE HOSE

ABBREVIATIONS

ATM	–	ATMOSPHERIC
BF	–	BLIND FLANGE
BOP	–	BOTTOM OF PIPE
CW	–	CHAINWHEEL OPERATED
DR.	–	DRAIN
F	–	FITTING
FC	–	FAIL CLOSED
FI	–	FAIL INDETERMINATE
FO	–	FAIL OPEN
GO	–	GEAR OPERATED
H.C.	–	HOSE CONNECTION
H. PT	–	HIGH POINT
IAS	–	INSTRUMENT AIR SUPPLY
L. PT	–	LOW POINT
NC	–	NORMALLY CLOSED
NLL	–	NORMAL LIQUID LEVEL
NO	–	NORMALLY OPEN
P	–	PIPE
P.O.S.	–	POINT OF SUPPORT
RO	–	RESTRICTION ORIFICE
S.T.	–	SAMPLE TAP
V	–	VALVE
V.S.	–	VENDOR SUPPLIED ITEM
XJ	–	EXPANSION JOINT

FLUID MEDIUM SPECIFICATIONS TABLE

FLUID MEDIUM ABBREVIATIONS	FLUID MEDIUM
RW	RAW WATER
TW	TREATED WATER
BW	BACKWASH WATER
SBW	SPENT BACKWASH WATER

INSTRUMENTATION SYMBOLS & LEGEND

MOTOR

PANEL LIGHT/INDICATOR

(INSTRUMENTATION)

F1 224 — 2 SERIES — 02 FUNCTIONAL GROUP

(EQUIPMENT)

P23 — P TYPE — 02 FUNCTIONAL GROUP

INSTRUMENTATION SYMBOLS & LEGEND continued

GENERAL SYMBOL – BALLOON (APPROX. SIZE 5/16" DIA.)

- LOCALLY MOUNTED — PE 1021
- MOUNTED BEHIND BOARD — PE 1021
- MOUNTED BEHIND BOARD IN AUX LOCATION — PE 1021
- LOCALLY MOUNTED TWO MEASURED VARIABLES — PE 1021, PE 1022
- MOUNTED BEHIND BOARD TWO MEASURED VARIABLES — PE 1021, PE 1022
- AUX LOCATION: NORMALLY ACCESSABLE TO OPERATOR — PE 1021
- ELECTRICAL SIGNAL
- MOUNTED ON BOARD — PE 1021
- LOCALLY MOUNTED LONG TAG NUMBER — PE 1022-23
- MOUNTED ON BOARD TWO MEASURED VARIABLES — PE 1021, PE 1022
- INTERLOCK — I 1
- PROGRAMABLE INTERLOCK — I 2

MEANINGS OF IDENTIFICATION LETTERING

LTR	FIRST LETTER: MEASURED OR INITIATING VARIABLE	FIRST LETTER: MODIFIER	SUCCEEDING LETTER: READOUT OR PASSIVE FUNCTION	SUCCEEDING LETTER: OUTPUT FUNCTION	SUCCEEDING LETTER: MODIFIER
A	ANALYSIS	-	ALARM	-	-
B	BURNER FLAME	-	USERS CHOICE	* →	→
C	CONDUCTIVITY (ELEC)	-	-	CONTROL 13	-
D	DENSITY (MASS) OR SPECIFIC GRAVITY	DIFFERENTIAL *	-	-	-
E	VOLTAGE (EMF)	-	PRIMARY ELEMENT	-	-
F	FLOW RATE	RATIO (FRACTION)*	-	-	-
G	GAGING (DIMENSIONAL)	-	GLASS *	-	-
H	HAND (MANUALLY ACTIVATED)	-	ALARM	-	HIGH *
I	CURRENT (ELEC)	-	INDICATE	-	-
J	POWER	SCAN	-	-	-
K	TIME OR TIME – SCHEDULE	-	-	CONTROL STATION	-
L	LEVEL	-	LIGHT (PILOT)	*	LOW
M	MOISTURE OR HUMIDITY	-	-	-	MIDDLE OR INTERMIDIATE
N	USERS CHOICE*	→	→	→	→
O	USERS CHOICE*	-	ORIFICE (RESTRICTION)	-	-
P	PRESSURE/VACUUM	-	POINT (TEST CONNECTION	-	-
Q	QUANTITY/EVENT	INTEGRATE OR TOTALIZE*	-	-	-
R	RADIOACTIVITY	-	RECORD/PRINT	-	-
S	SPEED/FREQUENCY	SAFETY*	-	SWITCH*	-
T	TEMPERATURE	-	ALARM	TRANSMIT	-
U	MULTIVARIABLE*	-	MULTIFUNCTION	* →	→
V	VISCOSITY	-	-	VALVE DAMPER OR LOUVER*	-
W	WEIGHT/FORCE	-	WELL	-	-
X	UNCLASSIFIED*	→	→	→	→
Y	USERS CHOICE*	-	ALARM	RELAY OR COMPUTE*	-
Z	POSITION	-	-	DRIVE, ACTUATE OR UNCLASSIFIED FINAL CONTROL ELEMENT	-

* = SEE ISA "INSTRUMENTATION SYMBOLS AND IDENTIFICATION" MANUAL (AMERICAN NATIONAL STANDARD) 1981 EDITION. TABLE 1. PAGE 12.

DPAH	= DIFFERENTIAL PRESSURE ALARM (HIGH)
DPSL	= DIFFERENTRIAL PRESSURE SWITCH (LOW)
FE	= FLOW ELEMENT
FSL	= FLOW SWITCH (LOW)
FP	= FLOW MEASURE
FIR	= FLOW INDICATOR AND RECORDER
FI	= FLOW INDICATOR
FQI	= FLOW REGULATOR
LLA	= LOW LEVEL ALARM
LC	= LEVEL CONTROL
LSH	= LEVEL SWITCH HIGH
LSL	= LEVEL SWITCH LOW
LSHH	= LEVEL SWITCH HIGH HIGH
PDSL	= DIFFERENTIAL PRESSURE SWITCH
PI	= PRESSURE INDICATOR (GAUGE)
PSL	= PRESSURE SWITCH (LOW)
PSH	= PRESSURE SWITCH (HIGH)
S	= SAMPLE
TC	= TEMPERATURE CONTROLLER
TE	= TEMPERATURE ELEMENT
TI	= TEMPERATURE INDICATOR (GAUGE)
TIR	= TEMPERATURE INDICATOR AND RECORDER
TSL	= TEMPERATURE SWITCH LOW
TSH	= TEMPERATURE SWITCH HIGH
XIR	= PH RECORDER
XSL	= PH (LOW)
XSH	= PH (HIGH)

SECTION & DETAIL IDENTIFICATION

SECTION CUTS

SHEET NUMBER WHERE SECTION ORIGINATED — I / C-1 — SECTION NUMBERS — SHEET NUMBERS WHERE SECTION IS LOCATED

DETAIL CALL OUT

PIPE FLANGE TYPICAL — A / C-1 — DETAIL DESIGNATION — SHEET NUMBERS WHERE SECTION IS LOCATED — SHEET NUMBER WHERE DETAIL ORIGINATED

LOCAL SECTION/DETAIL CALL OUTS

A A

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JOB No. 62370

REGISTERED PROFESSIONAL ENGINEER No. 34557 Regina S. Deutscher EXP. 5/30/99 CIVIL STATE OF CALIFORNIA

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

LEGEND & SYMBOLS

Scale: NONE | Date: 6/97 | Dwg. No.: G-4

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NOTE:

CARBON UNITS, SPENT BACKWASH LINES, BACKWASH HEADER AND ON PAD PORTIONS OF CARBON INFLUENT AND EFFLUENT LINES BY OTHERS. FINAL CONNECTION BY GENERAL CONTRACTOR. FOR LIMITS OF WORK SEE SHEETS C-3 AND C-5.

EXISTING WELL NO.4

EXISTING TREATED WATER

FLOW METER

BACKFLOW PREVENTER

WORK BY OTHERS (TYP) SEE NOTE.

RAW WATER INLET

RAW WATER INLET

EXISTING WELL NO.1

EXISTING WELL NO.2

DRAIN CHANNEL

BACKWASH WATER HEADER

SPENT BACKWASH LINE (TYP)

BACKWASH DRAIN

BACKWASH SUPPLY

CARBON UNIT 20,000 LB 5A

CARBON UNIT 20,000 LB 5B

CARBON UNIT 20,000 LB 6A

CARBON UNIT 20,000 LB 6B

CARBON UNIT 20,000 LB 7A

CARBON UNIT 20,000 LB 7B

TYPICAL ALL LATERALS THIS SITE

RAW WATER INLET HEADER

TREATED WATER HEADER

BLIND

EXISTING DRAIN LINE

FLOW METER

ACV VALVE

ANTI-SIPHON LOOP AND CONCRETE PAD

CARBON UNIT 20,000 LB 1A

CARBON UNIT 20,000 LB 1B

CARBON UNIT 20,000 LB 2A

CARBON UNIT 20,000 LB 2B

CARBON UNIT 20,000 LB 3A

CARBON UNIT 20,000 LB 3B

CARBON UNIT 20,000 LB 4A

CARBON UNIT 20,000 LB 4B

SPENT BACKWASH LINE (TYP)

BACKWASH WATER HEADER

DRAIN CHANNEL

EXISTING AIR STRIPPING TOWER

EXISTING TREATED WATER DISCHARGE LINES TO RESERVOIR

SPENT BACKWASH

EXISTING DRAIN LINE

RAW WATER INLET

EXISTING RESERVOIR

TO STORM WATER CANAL

PROPOSED WELL EPA NO.7

PROPOSED WELL EPA NO.6

EXISTING WELL NO.3

LEGEND :

EXISTING

NEW (GENERAL CONTRACTORS LIMITS OF WORK)

NOTE

CARBON UNITS WITH ALL RELATED PIPING, VALVING AND INSTRUMENTATION PROVIDED BY CARBON VENDOR

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SACRAMENTO CALIFORNIA

JOB No. 62370

REGISTERED PROFESSIONAL ENGINEER No. 34557 Wayne A. Deutschel EXP. 9/30/99 CIVIL STATE OF CALIFORNIA

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

NORTH PLANT
PROCESS FLOW DIAGRAM

Scale: NONE | Date: 6/97 | Dwg. No.: P-1

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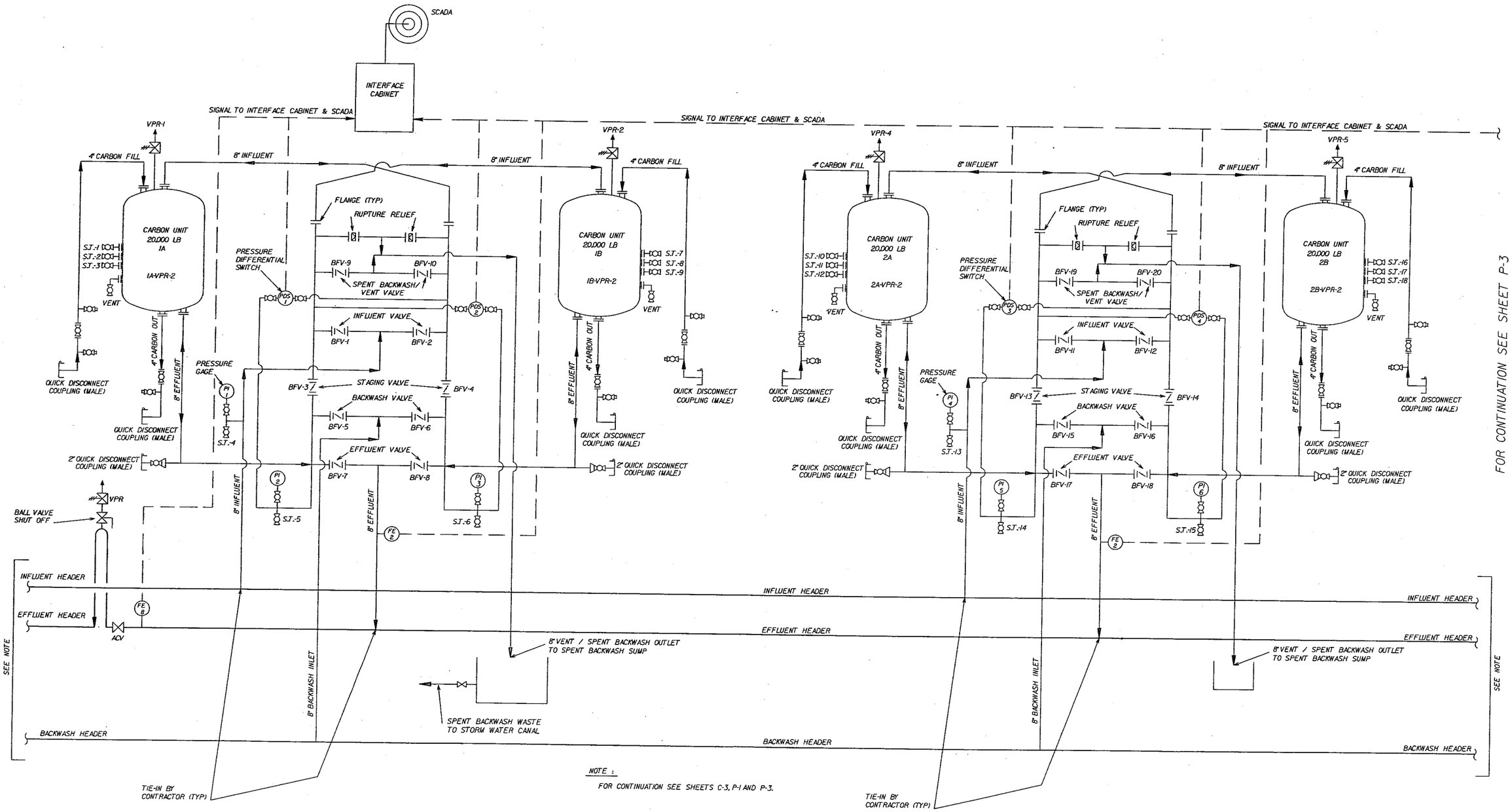

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NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

NORTH PLANT
PIPING AND INSTRUMENTATION
DIAGRAM (P&ID)

Scale: NO SCALE | Date: 6/97 | Dwg. No.: P-2

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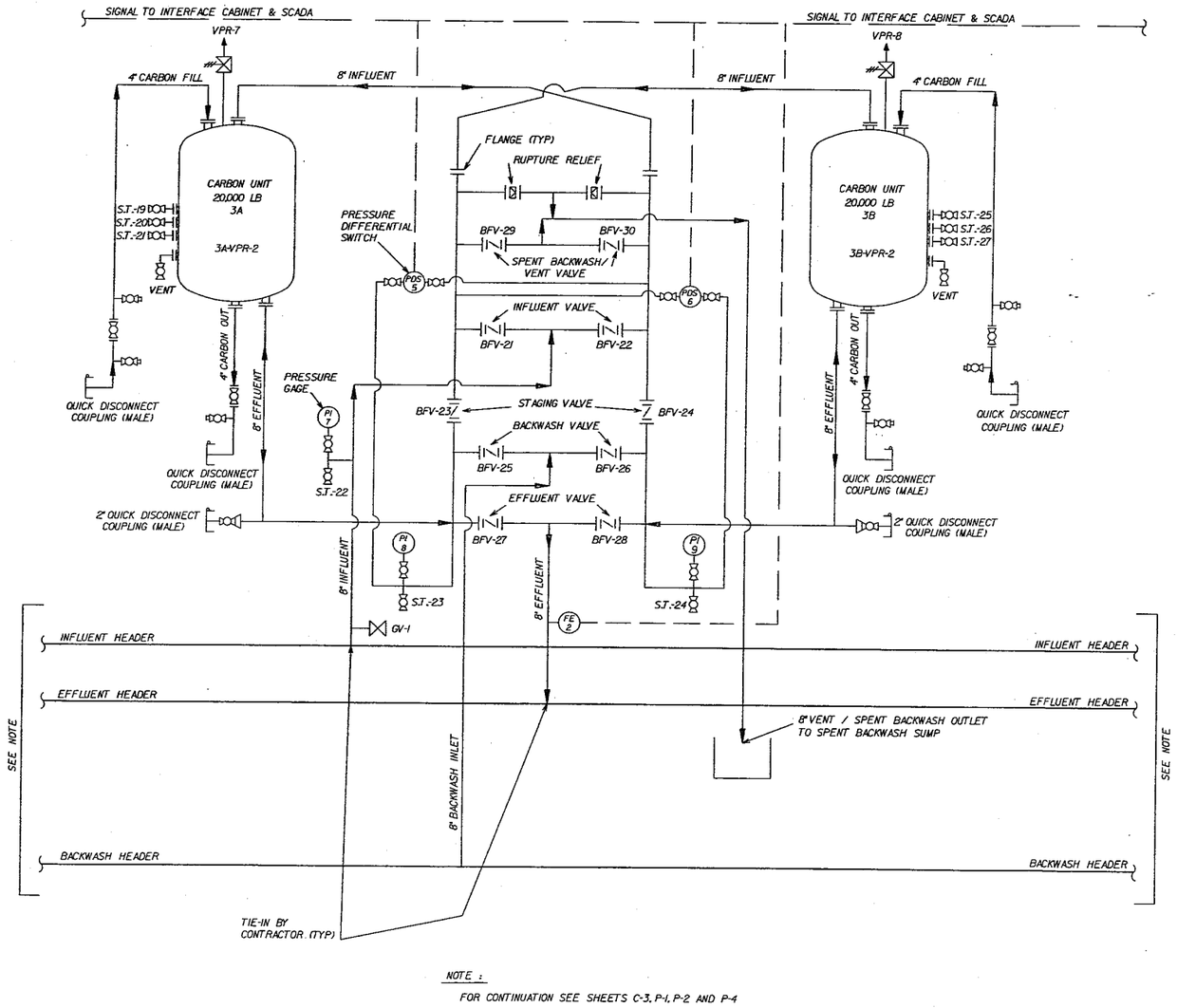
FOR CONTINUATION SEE SHEET P-2

FOR CONTINUATION SEE SHEET P-4



NOTE :

FOR CONTINUATION SEE SHEETS C-3, P-1, P-2 AND P-4

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NORTH PLANT
PIPING AND INSTRUMENTATION
DIAGRAM (P&ID)

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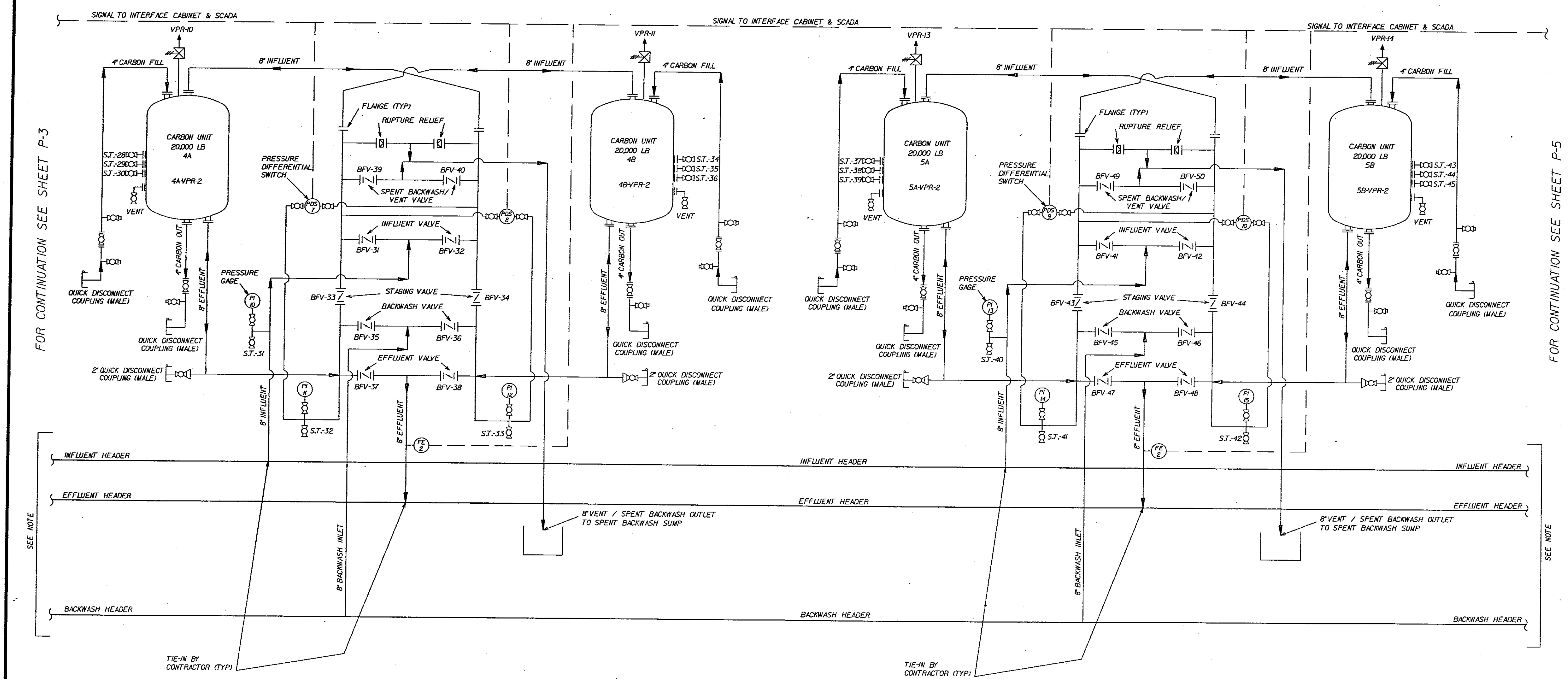

NOTE :

FOR CONTINUATION SEE SHEETS C-3, P-1, P-3 AND P-5

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SACRAMENTO CALIFORNIA

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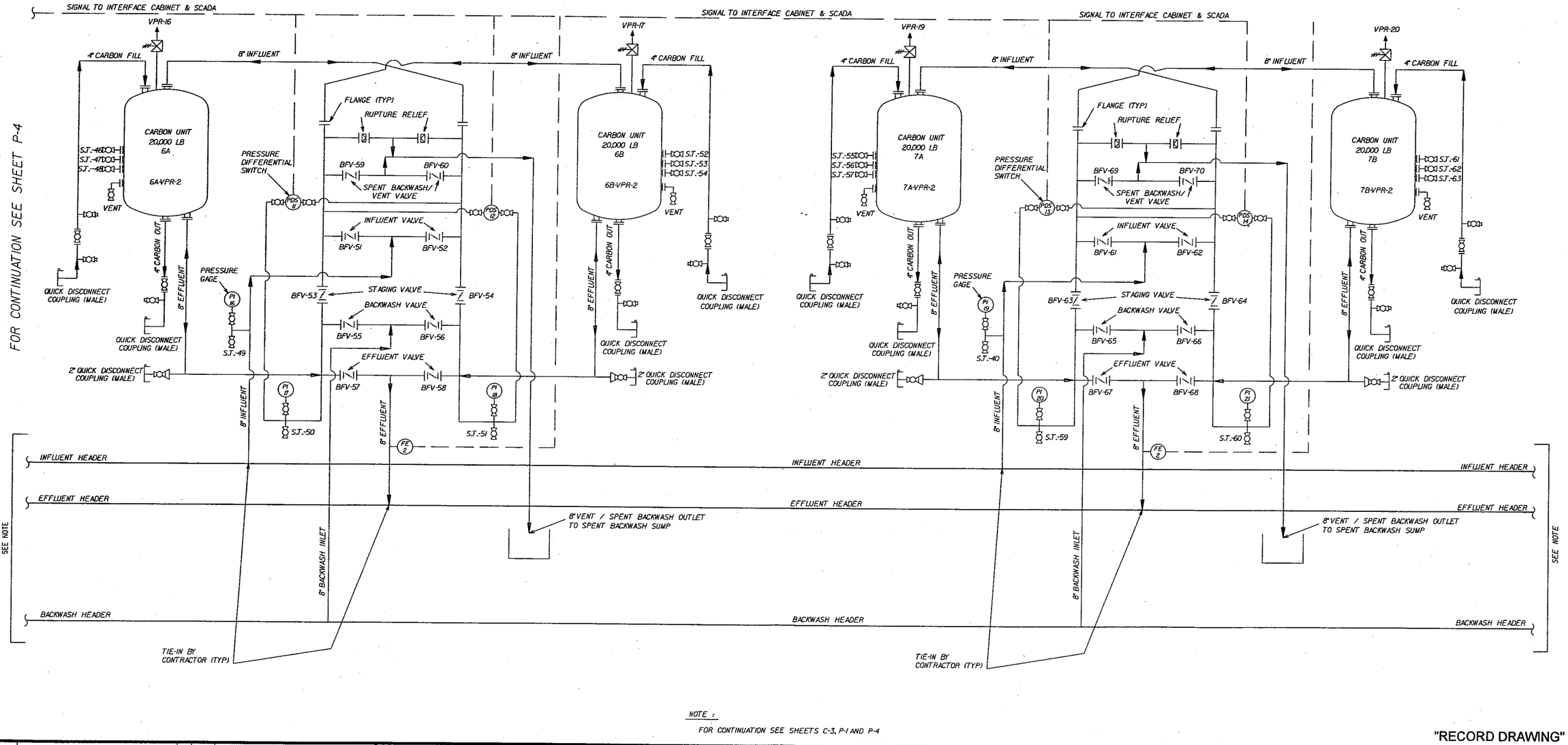
NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

NORTH PLANT
PIPING AND INSTRUMENTATION
DIAGRAM (P&ID)

Scale: NO SCALE | Date: 6/97 | Dwg. No.: P-4

JOB No. 62370.50 FILE No. T:\UST5\PROJ\NEWMARK\ASBUILT\1P-4.DGN



NOTE :

FOR CONTINUATION SEE SHEETS C-3, P-1 AND P-4

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REGISTERED PROFESSIONAL ENGINEER — No. 5457 — Wayne R. Deutscher — EXP. 9/30/99 — CIVIL — STATE OF CALIFORNIA

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
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NORTH & SOUTH PLANTS

NORTH PLANT
PIPING AND INSTRUMENTATION
DIAGRAM (P&ID)

Scale: NO SCALE | Date: 6/97 | Dwg. No.: P-5

JOB No. 62370.50 FILE No. T:\UST5\PROJ\NEWMARK\ASBUILT\ IP-5.DGN

CARBON UNITS VALVE SCHEDULE

* NEW VALVE ADDED AFTER VESSEL INSTALLATION

NOTE : FOR THE OPERATION OF VALVES IN EACH OPERATING MODE REFER TO THE O&M MANUAL

LOCATION

1A & 1B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-1	AIR VACUUM/PRESSURE RELIEF	1A-VPR-1
VPR-2	AIR VACUUM/PRESSURE RELIEF	1B-VPR-1
* 1A-VPR-2	AIR VACUUM/PRESSURE RELIEF	1A-VPR-2
* 1B-VPR-2	AIR VACCUM/PRESSURE RELIEF	1B-VPR-2
S.T.-1	SAMPLE TAP CARBON UNIT 1A	1A-ST-1
S.T.-2	SAMPLE TAP CARBON UNIT 1A	1A-ST-2
S.T.-3	SAMPLE TAP CARBON UNIT 1A	1A-ST-3
S.T.-4	SAMPLE TAP INFLUENT	1A-ST-4
S.T.-5	SAMPLE TAP INTERMEDIATE	1A-ST-5,1B-ST-5
S.T.-6	SAMPLE TAP EFFLUENT	1B-ST-4
S.T.-7	SAMPLE TAP CARBON UNIT 1B	1B-ST-1
S.T.-8	SAMPLE TAP CARBON UNIT 1B	1B-ST-2
S.T.-9	SAMPLE TAP CARBON UNIT 1B	1B-ST-3
BFV-1	INFLUENT	1A-BFV-2
BFV-2	INFLUENT	1B-BFV-2
BFV-3	STAGING	1A-BFV-3
BFV-4	STAGING	1B-BFV-3
BFV-5	BACKWASH	1A-BFV-4
BFV-6	BACKWASH	1B-BFV-4
BFV-7	EFFLUENT	1A-BFV-5
BFV-8	EFFLUENT	1B-BFV-5
BFV-9	SPENT BACKWASH/VENT	1A-BFV-1
BFV-10	SPENT BACKWASH/VENT	1B-BFV-1

LOCATION

2A & 2B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-4	AIR VACUUM/PRESSURE RELIEF	2A-VPR-1
VPR-5	AIR VACUUM/PRESSURE RELIEF	2B-VPR-1
* 2A-VPR-2	AIR VACUUM/PRESSURE RELIEF	2A-VPR-2
* 2B-VPR-2	AIR VACCUM/PRESSURE RELIEF	2B-VPR-2
S.T.-10	SAMPLE TAP CARBON UNIT 2A	2A-ST-1
S.T.-11	SAMPLE TAP CARBON UNIT 2A	2A-ST-2
S.T.-12	SAMPLE TAP CARBON UNIT 2A	2A-ST-3
S.T.-13	SAMPLE TAP INFLUENT	2A-ST-4
S.T.-14	SAMPLE TAP INTERMEDIATE	2A-ST-5,2B-ST-5
S.T.-15	SAMPLE TAP EFFLUENT	2B-ST-4
S.T.-16	SAMPLE TAP CARBON UNIT 2B	2B-ST-1
S.T.-17	SAMPLE TAP CARBON UNIT 2B	2B-ST-2
S.T.-18	SAMPLE TAP CARBON UNIT 2B	2B-ST-3
BFV-11	INFLUENT	2A-BFV-2
BFV-12	INFLUENT	2B-BFV-2
BFV-13	STAGING	2A-BFV-3
BFV-14	STAGING	2B-BFV-3
BFV-15	BACKWASH	2A-BFV-4
BFV-16	BACKWASH	2B-BFV-4
BFV-17	EFFLUENT	2A-BFV-5
BFV-18	EFFLUENT	2B-BFV-5
BFV-19	SPENT BACKWASH/VENT	2A-BFV-1
BFV-20	SPENT BACKWASH/VENT	2B-BFV-1

LOCATION

3A & 3B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-7	AIR VACUUM/PRESSURE RELIEF	3A-VPR-1
VPR-8	AIR VACUUM/PRESSURE RELIEF	3B-VPR-1
* 3A-VPR-2	AIR VACUUM/PRESSURE RELIEF	3A-VPR-2
* 3B-VPR-2	AIR VACCUM/PRESSURE RELIEF	3B-VPR-2
S.T.-19	SAMPLE TAP CARBON UNIT 3A	3A-ST-1
S.T.-20	SAMPLE TAP CARBON UNIT 3A	3A-ST-2
S.T.-21	SAMPLE TAP CARBON UNIT 3A	3A-ST-3
S.T.-22	SAMPLE TAP INFLUENT	3A-ST-4
S.T.-23	SAMPLE TAP INTERMEDIATE	3A-ST-5,3B-ST-5
S.T.-24	SAMPLE TAP EFFLUENT	3B-ST-4
S.T.-25	SAMPLE TAP CARBON UNIT 3B	3B-ST-1
S.T.-26	SAMPLE TAP CARBON UNIT 3B	3B-ST-2
S.T.-27	SAMPLE TAP CARBON UNIT 3B	3B-ST-3
BFV-21	INFLUENT	3A-BFV-2
BFV-22	INFLUENT	3B-BFV-2
BFV-23	STAGING	3A-BFV-3
BFV-24	STAGING	3B-BFV-3
BFV-25	BACKWASH	3A-BFV-4
BFV-26	BACKWASH	3B-BFV-4
BFV-27	EFFLUENT	3A-BFV-5
BFV-28	EFFLUENT	3B-BFV-5
BFV-29	SPENT BACKWASH/VENT	3A-BFV-1
BFV-30	SPENT BACKWASH/VENT	3B-BFV-1

LOCATION

4A & 4B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-10	AIR VACUUM/PRESSURE RELIEF	4A-VPR-1
VPR-11	AIR VACUUM/PRESSURE RELIEF	4B-VPR-1
* 4A-VPR-2	AIR VACUUM/PRESSURE RELIEF	4A-VPR-2
* 4B-VPR-2	AIR VACCUM/PRESSURE RELIEF	4B-VPR-2
S.T.-28	SAMPLE TAP CARBON UNIT 4A	4A-ST-1
S.T.-29	SAMPLE TAP CARBON UNIT 4A	4A-ST-2
S.T.-30	SAMPLE TAP CARBON UNIT 4A	4A-ST-3
S.T.-31	SAMPLE TAP INFLUENT	4A-ST-4
S.T.-32	SAMPLE TAP INTERMEDIATE	4A-ST-5,4B-ST-5
S.T.-33	SAMPLE TAP EFFLUENT	4B-ST-4
S.T.-34	SAMPLE TAP CARBON UNIT 4B	4B-ST-1
S.T.-35	SAMPLE TAP CARBON UNIT 4B	4B-ST-2
S.T.-36	SAMPLE TAP CARBON UNIT 4B	4B-ST-3
BFV-31	INFLUENT	4A-BFV-2
BFV-32	INFLUENT	4B-BFV-2
BFV-33	STAGING	4A-BFV-3
BFV-34	STAGING	4B-BFV-3
BFV-35	BACKWASH	4A-BFV-4
BFV-36	BACKWASH	4B-BFV-4
BFV-37	EFFLUENT	4A-BFV-5
BFV-38	EFFLUENT	4B-BFV-5
BFV-39	SPENT BACKWASH/VENT	4A-BFV-1
BFV-40	SPENT BACKWASH/VENT	4B-BFV-1

LOCATION

5A & 5B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-13	AIR VACUUM/PRESSURE RELIEF	5A-VPR-1
VPR-14	AIR VACUUM/PRESSURE RELIEF	5B-VPR-1
* 5A-VPR-2	AIR VACUUM/PRESSURE RELIEF	5A-VPR-2
* 5B-VPR-2	AIR VACCUM/PRESSURE RELIEF	5B-VPR-2
S.T.-37	SAMPLE TAP CARBON UNIT 5A	5A-ST-1
S.T.-38	SAMPLE TAP CARBON UNIT 5A	5A-ST-2
S.T.-39	SAMPLE TAP CARBON UNIT 5A	5A-ST-3
S.T.-40	SAMPLE TAP INFLUENT	5A-ST-4
S.T.-41	SAMPLE TAP INTERMEDIATE	5A-ST-5,5B-ST-5
S.T.-42	SAMPLE TAP EFFLUENT	5B-ST-4
S.T.-43	SAMPLE TAP CARBON UNIT 5B	5B-ST-1
S.T.-44	SAMPLE TAP CARBON UNIT 5B	5B-ST-2
S.T.-45	SAMPLE TAP CARBON UNIT 5B	5B-ST-3
BFV-41	INFLUENT	5A-BFV-2
BFV-42	INFLUENT	5B-BFV-2
BFV-43	STAGING	5A-BFV-3
BFV-44	STAGING	5B-BFV-3
BFV-45	BACKWASH	5A-BFV-4
BFV-46	BACKWASH	5B-BFV-4
BFV-47	EFFLUENT	5A-BFV-5
BFV-48	EFFLUENT	5B-BFV-5
BFV-49	SPENT BACKWASH/VENT	5A-BFV-1
BFV-50	SPENT BACKWASH/VENT	5B-BFV-1

LOCATION

6A & 6B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-16	AIR VACUUM/PRESSURE RELIEF	6A-VPR-1
VPR-17	AIR VACUUM/PRESSURE RELIEF	6B-VPR-1
* 6A-VPR-2	AIR VACUUM/PRESSURE RELIEF	6A-VPR-2
* 6B-VPR-2	AIR VACCUM/PRESSURE RELIEF	6B-VPR-2
S.T.-46	SAMPLE TAP CARBON UNIT 6A	6A-ST-1
S.T.-47	SAMPLE TAP CARBON UNIT 6A	6A-ST-2
S.T.-48	SAMPLE TAP CARBON UNIT 6A	6A-ST-3
S.T.-49	SAMPLE TAP INFLUENT	6A-ST-4
S.T.-50	SAMPLE TAP INTERMEDIATE	6A-ST-5,6B-ST-5
S.T.-51	SAMPLE TAP EFFLUENT	6B-ST-4
S.T.-52	SAMPLE TAP CARBON UNIT 6B	6B-ST-1
S.T.-53	SAMPLE TAP CARBON UNIT 6B	6B-ST-2
S.T.-54	SAMPLE TAP CARBON UNIT 6B	6B-ST-3
BFV-51	INFLUENT	6A-BFV-2
BFV-52	INFLUENT	6B-BFV-2
BFV-53	STAGING	6A-BFV-3
BFV-54	STAGING	6B-BFV-3
BFV-55	BACKWASH	6A-BFV-4
BFV-56	BACKWASH	6B-BFV-4
BFV-57	EFFLUENT	6A-BFV-5
BFV-58	EFFLUENT	6B-BFV-5
BFV-59	SPENT BACKWASH/VENT	6A-BFV-1
BFV-60	SPENT BACKWASH/VENT	6B-BFV-1

LOCATION

7A & 7B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-19	AIR VACUUM/PRESSURE RELIEF	7A-VPR-1
VPR-20	AIR VACUUM/PRESSURE RELIEF	7B-VPR-1
* 7A-VPR-2	AIR VACUUM/PRESSURE RELIEF	7A-VPR-2
* 7B-VPR-2	AIR VACCUM/PRESSURE RELIEF	7B-VPR-2
S.T.-55	SAMPLE TAP CARBON UNIT 7A	7A-ST-1
S.T.-56	SAMPLE TAP CARBON UNIT 7A	7A-ST-2
S.T.-57	SAMPLE TAP CARBON UNIT 7A	7A-ST-3
S.T.-58	SAMPLE TAP INFLUENT	7A-ST-4
S.T.-59	SAMPLE TAP INTERMEDIATE	7A-ST-5,7B-ST-5
S.T.-60	SAMPLE TAP EFFLUENT	7B-ST-4
S.T.-61	SAMPLE TAP CARBON UNIT 7B	7B-ST-1
S.T.-62	SAMPLE TAP CARBON UNIT 7B	7B-ST-2
S.T.-63	SAMPLE TAP CARBON UNIT 7B	7B-ST-3
BFV-61	INFLUENT	7A-BFV-2
BFV-62	INFLUENT	7B-BFV-2
BFV-63	STAGING	7A-BFV-3
BFV-64	STAGING	7B-BFV-3
BFV-65	BACKWASH	7A-BFV-4
BFV-66	BACKWASH	7B-BFV-4
BFV-67	EFFLUENT	7A-BFV-5
BFV-68	EFFLUENT	7B-BFV-5
BFV-69	SPENT BACKWASH/VENT	7A-BFV-1
BFV-70	SPENT BACKWASH/VENT	7B-BFV-1

"RECORD DRAWING"

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
	11/98	RECORD DRAWING			

REVISIONS

DESIGNED BY: PS

DRAWN BY: NDH

CHECKED BY: DHD

URS Consultants, Inc.
CONSULTING ENGINEERS
SACRAMENTO CALIFORNIA

JOB No. 62370

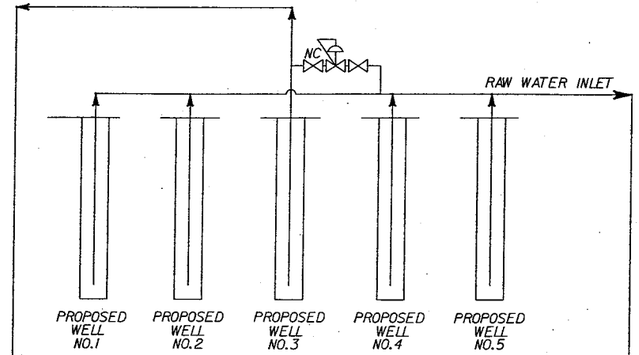
REGISTERED PROFESSIONAL ENGINEER No. 34057 Wayne R. Deutscher EXP. 9/30/99 CIVIL STATE OF CALIFORNIA

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

NORTH PLANT
CARBON UNITS VALVE SCHEDULE

Scale: NO SCALE | Date: 6/97 | Dwg. No.: P-6

JOB No. 62370.50 FILE No. T:\US75\PROJ\NEWMARK\ASBUILT_IP-6.DGN



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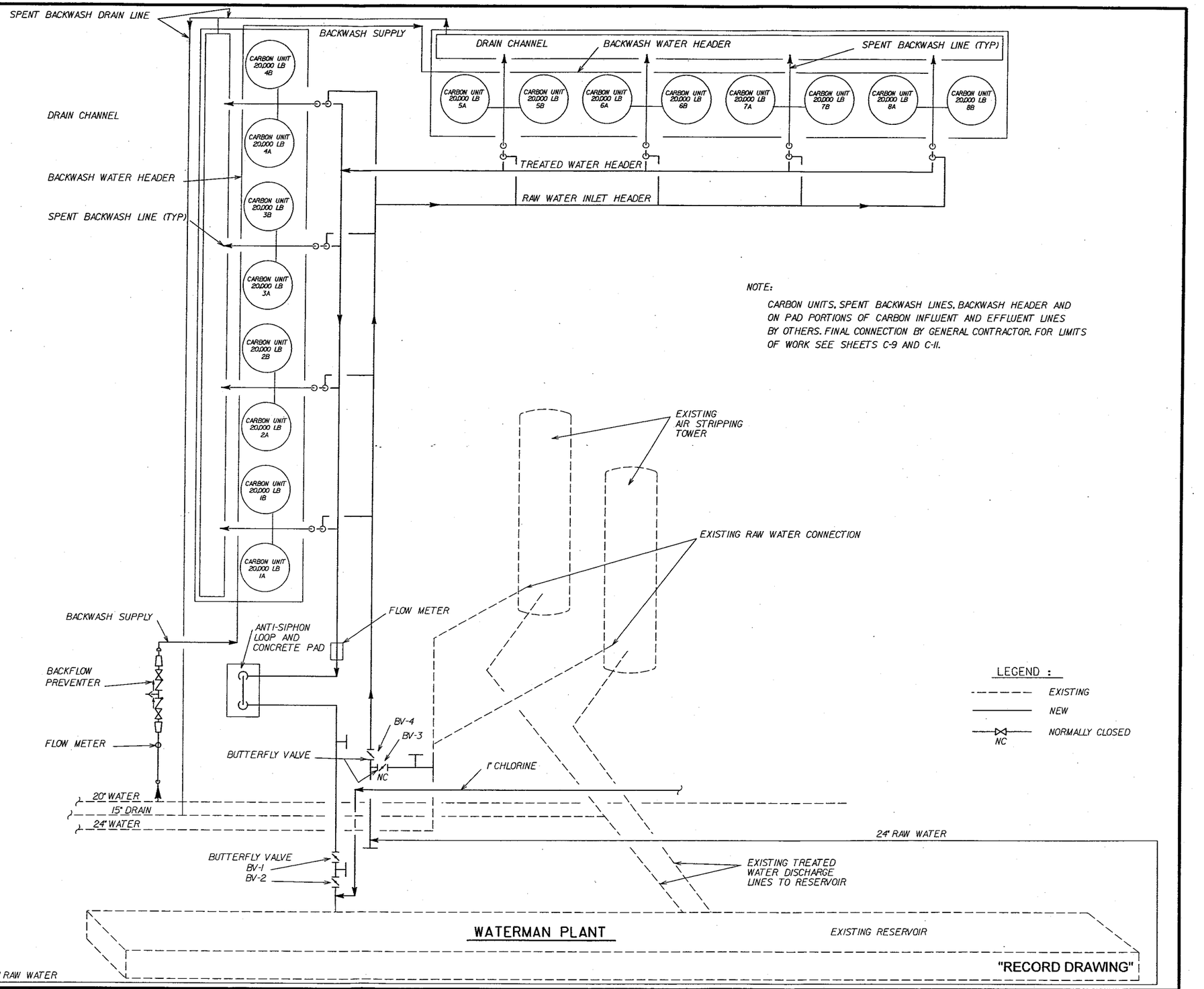

NOTE:

CARBON UNITS, SPENT BACKWASH LINES, BACKWASH HEADER AND ON PAD PORTIONS OF CARBON INFLUENT AND EFFLUENT LINES BY OTHERS. FINAL CONNECTION BY GENERAL CONTRACTOR. FOR LIMITS OF WORK SEE SHEETS C-9 AND C-11.

LEGEND :

- EXISTING
- NEW
- NC NORMALLY CLOSED

NOTE:

MODIFICATION PIPING FOR DOUBLE-PASS OPERATION TO BE ARRANGED BY THE CITY OF SAN BERNARDINO SEE SHT. C-14

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
	11/98	RECORD DRAWING			

REVISIONS

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CHECKED BY: DHD

URS Consultants, Inc.
CONSULTING ENGINEERS
SACRAMENTO CALIFORNIA

JOB No. 62370

REGISTERED PROFESSIONAL ENGINEER No. 34557 Dwayne R. Deutscher CIVIL STATE OF CALIFORNIA

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

WATERMAN PLANT
PROCESS FLOW DIAGRAM

Scale: NONE | Date: 6/97 | Dwg. No.: P-7

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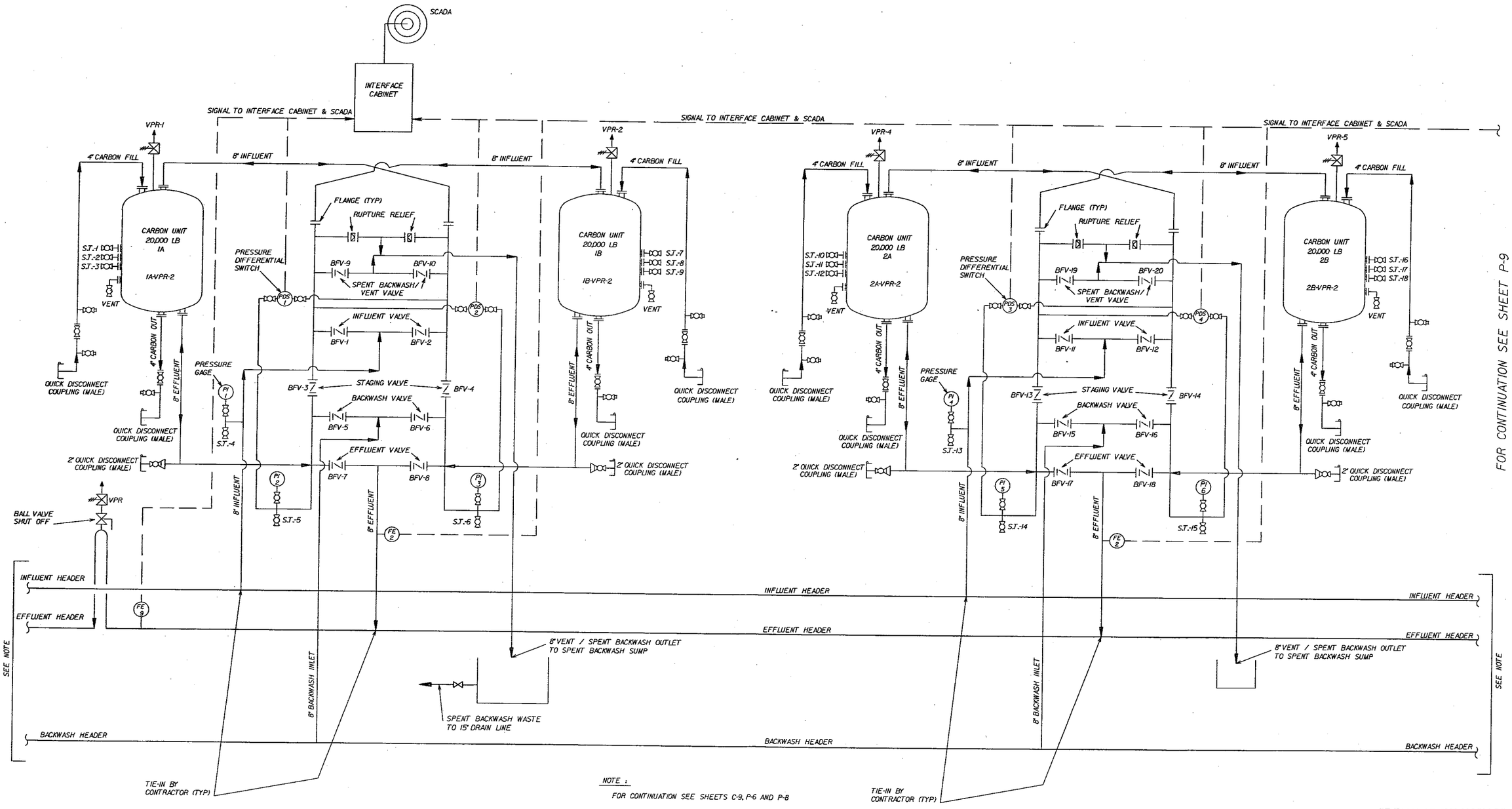

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	11/98	RECORD DRAWING			

REVISIONS

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DRAWN BY: NDH
CHECKED BY: DHD

URS Consultants, Inc.
CONSULTING ENGINEERS
SACRAMENTO CALIFORNIA

JOB No. 62370

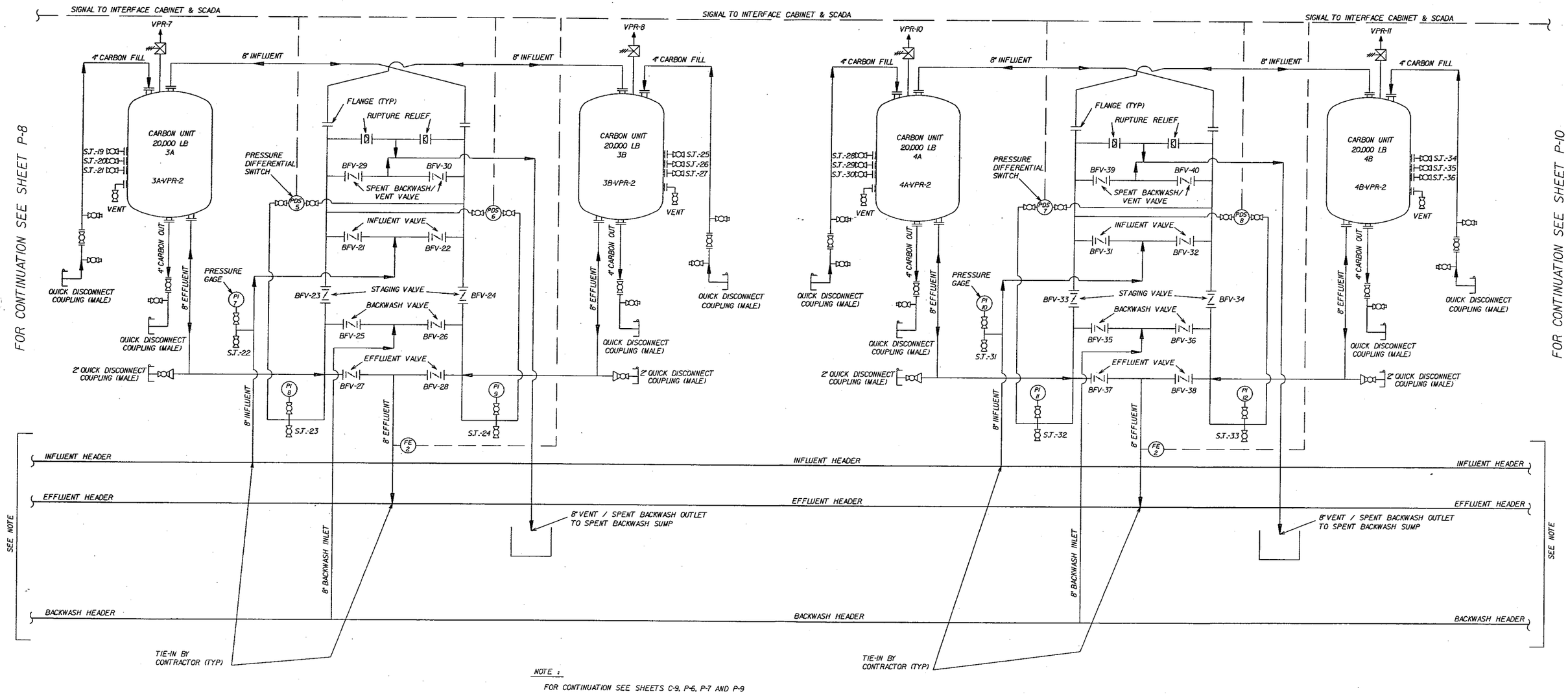
REGISTERED PROFESSIONAL ENGINEER No. 34557 Regina K. Bertucci Exp. 9/30/99 CIVIL STATE OF CALIFORNIA

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

WATERMAN PLANT
PIPING AND INSTRUMENTATION DIAGRAM (P&ID)

Scale: NO SCALE | Date: 6/97 | Dwg. No.: P-8

JOB No.: 62370.60 FILE No.: T:\JOBS\PROJ\NEWMARK\ASBUILT\ 1P-8.DGN



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NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
	11/98	RECORD DRAWING			

REVISIONS

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CHECKED BY: DHD

URS Consultants, Inc.
CONSULTING ENGINEERS
SACRAMENTO CALIFORNIA

JOB No. 62370

REGISTERED PROFESSIONAL ENGINEER No. 34557 Wayne N. Deutscher EXP. 9/30/99 CIVIL STATE OF CALIFORNIA

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

WATERMAN PLANT
PIPING AND INSTRUMENTATION
DIAGRAM (P&ID)

Scale: NO SCALE | Date: 6/97 | Dwg. No.: P-9

JOB No. 62370.50
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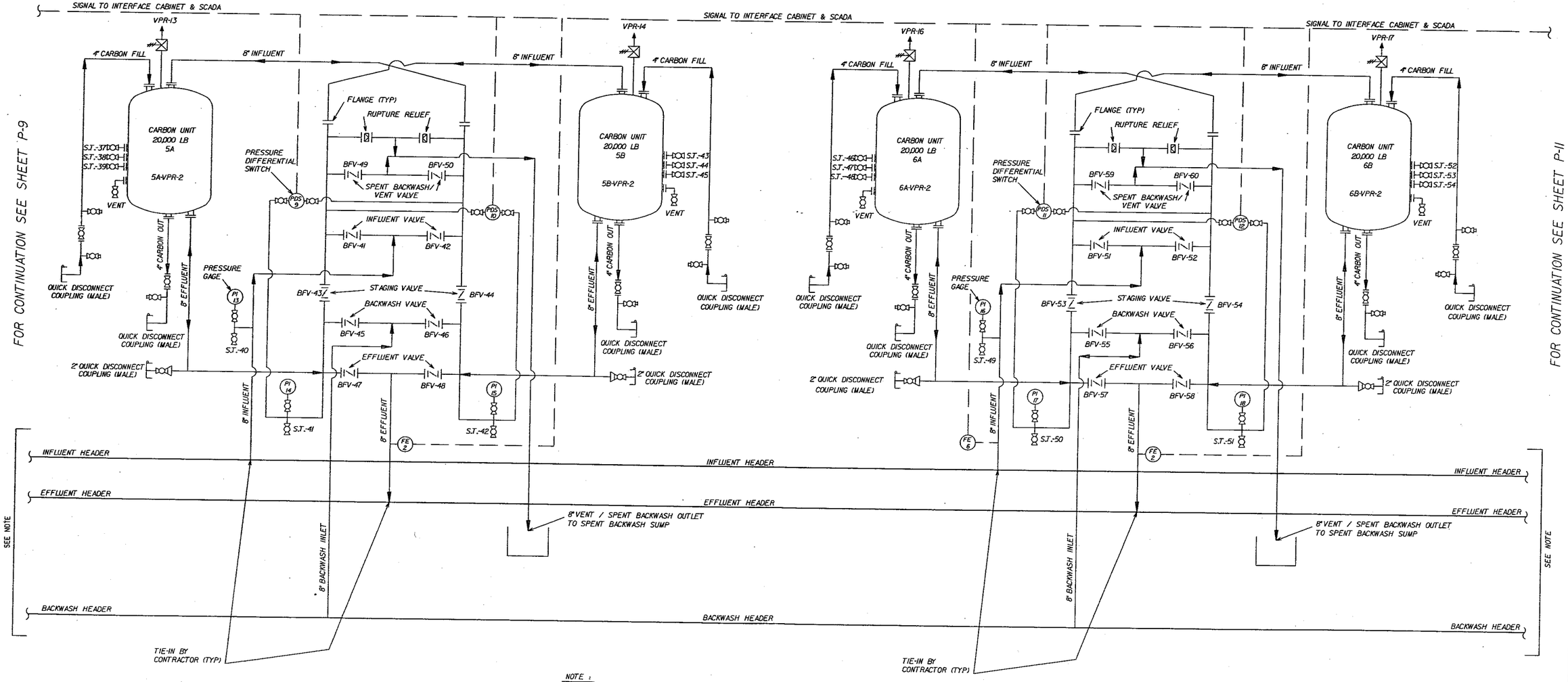

NOTE :

FOR CONTINUATION SEE SHEETS C-3, C-9, P-6, P-8 AND P-10.

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NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
	11/98	RECORD DRAWING			

REVISIONS

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DRAWN BY: NDH
CHECKED BY: DHD

URS Consultants, Inc.
CONSULTING ENGINEERS
SACRAMENTO CALIFORNIA

JOB No. 62370

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

WATERMAN PLANT
PIPING AND INSTRUMENTATION
DIAGRAM (P&ID)

Scale: NO SCALE | Date: 6/97 | Dwg. No.: P-10

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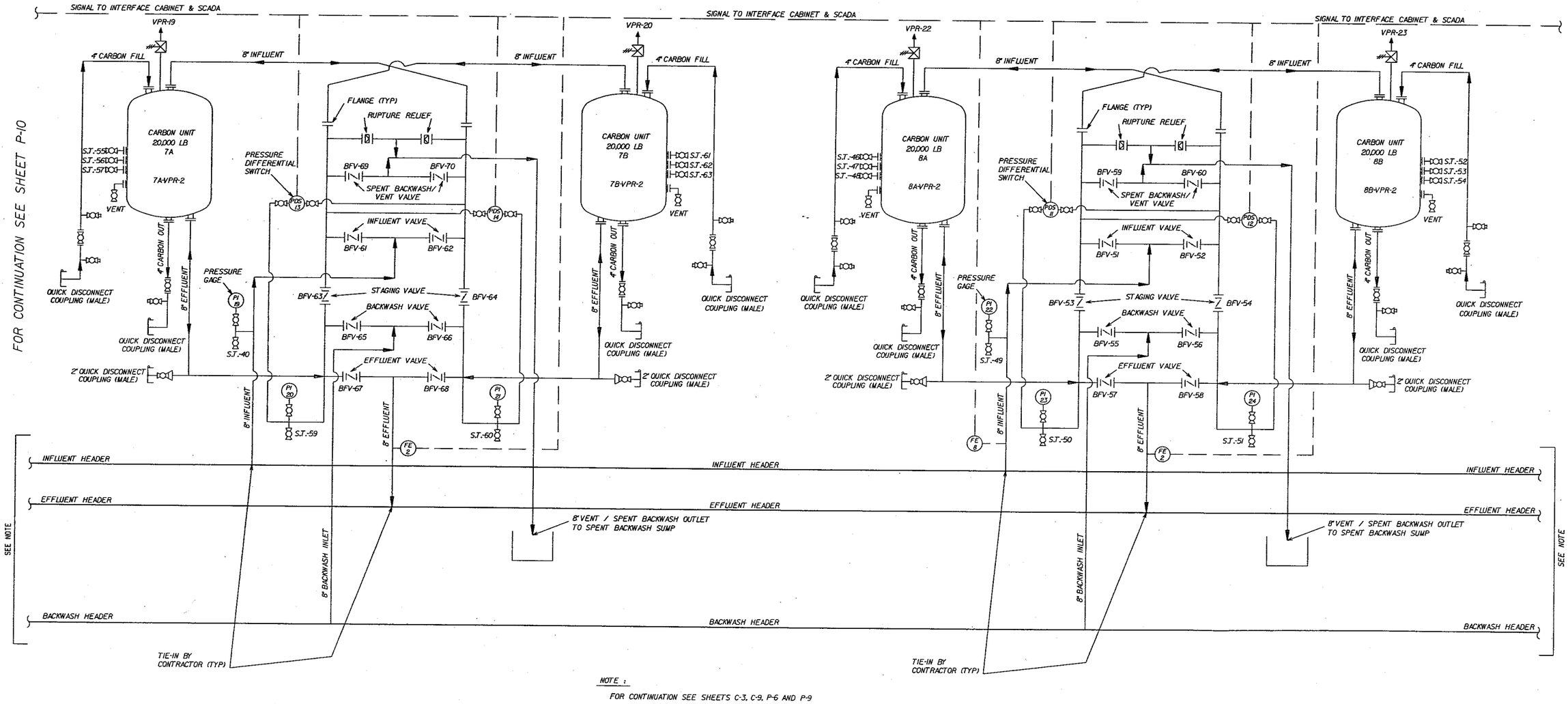

NOTE :

FOR CONTINUATION SEE SHEETS C-3, C-9, P-6 AND P-9

"RECORD DRAWING"

NO.	DATE	DESCRIPTION
	11/98	RECORD DRAWING

REVISIONS

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DRAWN BY: NDH
CHECKED BY: DHD

URS Consultants, Inc.
CONSULTING ENGINEERS
SACRAMENTO CALIFORNIA

JOB No. 62370

REGISTERED PROFESSIONAL ENGINEER — No. 34557 — Gregory R. Bartholomew — EXP. 9/30/99 — CIVIL — STATE OF CALIFORNIA

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

WATERMAN PLANT
PIPING AND INSTRUMENTATION DIAGRAM (P&ID)

Scale: NO SCALE | Date: 6/97 | Dwg. No.: P-11

JOB No. 62370.50 FILE No. T:\UST5_\PROJ\NEWMARK\ASBUILT\ IP-11.DGN

CARBON UNITS VALVE SCHEDULE

* NEW VALVE ADDED AFTER VESSEL INSTALLATION

NOTE : FOR THE OPERATION OF VALVES IN EACH OPERATING MODE REFER TO THE O&M MANUAL.

LOCATION

1A & 1B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-1	AIR VACUUM/PRESSURE RELIEF	1A-VPR-1
VPR-2	AIR VACUUM/PRESSURE RELIEF	1B-VPR-1
* 1A-VPR-2	AIR VACUUM/PRESSURE RELIEF	1A-VPR-2
* 1B-VPR-2	AIR VACCUM/PRESSURE RELIEF	1B-VPR-2
S.T.-1	SAMPLE TAP CARBON UNIT 1A	1A-ST-1
S.T.-2	SAMPLE TAP CARBON UNIT 1A	1A-ST-2
S.T.-3	SAMPLE TAP CARBON UNIT 1A	1A-ST-3
S.T.-4	SAMPLE TAP INFLUENT	1A-ST-4
S.T.-5	SAMPLE TAP INTERMEDIATE	1A-ST-5,1B-ST-5
S.T.-6	SAMPLE TAP EFFLUENT	1B-ST-4
S.T.-7	SAMPLE TAP CARBON UNIT 1B	1B-ST-1
S.T.-8	SAMPLE TAP CARBON UNIT 1B	1B-ST-2
S.T.-9	SAMPLE TAP CARBON UNIT 1B	1B-ST-3
BFV-1	INFLUENT	1A-BFV-2
BFV-2	INFLUENT	1B-BFV-2
BFV-3	STAGING	1A-BFV-3
BFV-4	STAGING	1B-BFV-3
BFV-5	BACKWASH	1A-BFV-4
BFV-6	BACKWASH	1B-BFV-4
BFV-7	EFFLUENT	1A-BFV-5
BFV-8	EFFLUENT	1B-BFV-5
BFV-9	SPENT BACKWASH/VENT	1A-BFV-1
BFV-10	SPENT BACKWASH/VENT	1B-BFV-1

LOCATION

2A & 2B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-4	AIR VACUUM/PRESSURE RELIEF	2A-VPR-1
VPR-5	AIR VACUUM/PRESSURE RELIEF	2B-VPR-1
* 2A-VPR-2	AIR VACUUM/PRESSURE RELIEF	2A-VPR-2
* 2B-VPR-2	AIR VACCUM/PRESSURE RELIEF	2B-VPR-2
S.T.-10	SAMPLE TAP CARBON UNIT 2A	2A-ST-1
S.T.-11	SAMPLE TAP CARBON UNIT 2A	2A-ST-2
S.T.-12	SAMPLE TAP CARBON UNIT 2A	2A-ST-3
S.T.-13	SAMPLE TAP INFLUENT	2A-ST-4
S.T.-14	SAMPLE TAP INTERMEDIATE	2A-ST-5,2B-ST-5
S.T.-15	SAMPLE TAP EFFLUENT	2B-ST-4
S.T.-16	SAMPLE TAP CARBON UNIT 2B	2B-ST-1
S.T.-17	SAMPLE TAP CARBON UNIT 2B	2B-ST-2
S.T.-18	SAMPLE TAP CARBON UNIT 2B	2B-ST-3
BFV-11	INFLUENT	2A-BFV-2
BFV-12	INFLUENT	2B-BFV-2
BFV-13	STAGING	2A-BFV-3
BFV-14	STAGING	2B-BFV-3
BFV-15	BACKWASH	2A-BFV-4
BFV-16	BACKWASH	2B-BFV-4
BFV-17	EFFLUENT	2A-BFV-5
BFV-18	EFFLUENT	2B-BFV-5
BFV-19	SPENT BACKWASH/VENT	2A-BFV-1
BFV-20	SPENT BACKWASH/VENT	2B-BFV-1

LOCATION

3A & 3B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-7	AIR VACUUM/PRESSURE RELIEF	3A-VPR-1
VPR-8	AIR VACUUM/PRESSURE RELIEF	3B-VPR-1
* 3A-VPR-2	AIR VACUUM/PRESSURE RELIEF	3A-VPR-2
* 3B-VPR-2	AIR VACCUM/PRESSURE RELIEF	3B-VPR-2
S.T.-19	SAMPLE TAP CARBON UNIT 3A	3A-ST-1
S.T.-20	SAMPLE TAP CARBON UNIT 3A	3A-ST-2
S.T.-21	SAMPLE TAP CARBON UNIT 3A	3A-ST-3
S.T.-22	SAMPLE TAP INFLUENT	3A-ST-4
S.T.-23	SAMPLE TAP INTERMEDIATE	3A-ST-5,3B-ST-5
S.T.-24	SAMPLE TAP EFFLUENT	3B-ST-4
S.T.-25	SAMPLE TAP CARBON UNIT 3B	3B-ST-1
S.T.-26	SAMPLE TAP CARBON UNIT 3B	3B-ST-2
S.T.-27	SAMPLE TAP CARBON UNIT 3B	3B-ST-3
BFV-21	INFLUENT	3A-BFV-2
BFV-22	INFLUENT	3B-BFV-2
BFV-23	STAGING	3A-BFV-3
BFV-24	STAGING	3B-BFV-3
BFV-25	BACKWASH	3A-BFV-4
BFV-26	BACKWASH	3B-BFV-4
BFV-27	EFFLUENT	3A-BFV-5
BFV-28	EFFLUENT	3B-BFV-5
BFV-29	SPENT BACKWASH/VENT	3A-BFV-1
BFV-30	SPENT BACKWASH/VENT	3B-BFV-1

LOCATION

4A & 4B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-10	AIR VACUUM/PRESSURE RELIEF	4A-VPR-1
VPR-11	AIR VACUUM/PRESSURE RELIEF	4B-VPR-1
* 4A-VPR-2	AIR VACUUM/PRESSURE RELIEF	4A-VPR-2
* 4B-VPR-2	AIR VACCUM/PRESSURE RELIEF	4B-VPR-2
S.T.-28	SAMPLE TAP CARBON UNIT 4A	4A-ST-1
S.T.-29	SAMPLE TAP CARBON UNIT 4A	4A-ST-2
S.T.-30	SAMPLE TAP CARBON UNIT 4A	4A-ST-3
S.T.-31	SAMPLE TAP INFLUENT	4A-ST-4
S.T.-32	SAMPLE TAP INTERMEDIATE	4A-ST-5,4B-ST-5
S.T.-33	SAMPLE TAP EFFLUENT	4B-ST-4
S.T.-34	SAMPLE TAP CARBON UNIT 4B	4B-ST-1
S.T.-35	SAMPLE TAP CARBON UNIT 4B	4B-ST-2
S.T.-36	SAMPLE TAP CARBON UNIT 4B	4B-ST-3
BFV-31	INFLUENT	4A-BFV-2
BFV-32	INFLUENT	4B-BFV-2
BFV-33	STAGING	4A-BFV-3
BFV-34	STAGING	4B-BFV-3
BFV-35	BACKWASH	4A-BFV-4
BFV-36	BACKWASH	4B-BFV-4
BFV-37	EFFLUENT	4A-BFV-5
BFV-38	EFFLUENT	4B-BFV-5
BFV-39	SPENT BACKWASH/VENT	4A-BFV-1
BFV-40	SPENT BACKWASH/VENT	4B-BFV-1

LOCATION

5A & 5B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-13	AIR VACUUM/PRESSURE RELIEF	5A-VPR-1
VPR-14	AIR VACUUM/PRESSURE RELIEF	5B-VPR-1
* 5A-VPR-2	AIR VACUUM/PRESSURE RELIEF	5A-VPR-2
* 5B-VPR-2	AIR VACCUM/PRESSURE RELIEF	5B-VPR-2
S.T.-37	SAMPLE TAP CARBON UNIT 5A	5A-ST-1
S.T.-38	SAMPLE TAP CARBON UNIT 5A	5A-ST-2
S.T.-39	SAMPLE TAP CARBON UNIT 5A	5A-ST-3
S.T.-40	SAMPLE TAP INFLUENT	5A-ST-4
S.T.-41	SAMPLE TAP INTERMEDIATE	5A-ST-5,5B-ST-5
S.T.-42	SAMPLE TAP EFFLUENT	5B-ST-4
S.T.-43	SAMPLE TAP CARBON UNIT 5B	5B-ST-1
S.T.-44	SAMPLE TAP CARBON UNIT 5B	5B-ST-2
S.T.-45	SAMPLE TAP CARBON UNIT 5B	5B-ST-3
BFV-41	INFLUENT	5A-BFV-2
BFV-42	INFLUENT	5B-BFV-2
BFV-43	STAGING	5A-BFV-3
BFV-44	STAGING	5B-BFV-3
BFV-45	BACKWASH	5A-BFV-4
BFV-46	BACKWASH	5B-BFV-4
BFV-47	EFFLUENT	5A-BFV-5
BFV-48	EFFLUENT	5B-BFV-5
BFV-49	SPENT BACKWASH/VENT	5A-BFV-1
BFV-50	SPENT BACKWASH/VENT	5B-BFV-1

LOCATION

6A & 6B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-16	AIR VACUUM/PRESSURE RELIEF	6A-VPR-1
VPR-17	AIR VACUUM/PRESSURE RELIEF	6B-VPR-1
* 6A-VPR-2	AIR VACUUM/PRESSURE RELIEF	6A-VPR-2
* 6B-VPR-2	AIR VACCUM/PRESSURE RELIEF	6B-VPR-2
S.T.-46	SAMPLE TAP CARBON UNIT 6A	6A-ST-1
S.T.-47	SAMPLE TAP CARBON UNIT 6A	6A-ST-2
S.T.-48	SAMPLE TAP CARBON UNIT 6A	6A-ST-3
S.T.-49	SAMPLE TAP INFLUENT	6A-ST-4
S.T.-50	SAMPLE TAP INTERMEDIATE	6A-ST-5,6B-ST-5
S.T.-51	SAMPLE TAP EFFLUENT	6B-ST-4
S.T.-52	SAMPLE TAP CARBON UNIT 6B	6B-ST-1
S.T.-53	SAMPLE TAP CARBON UNIT 6B	6B-ST-2
S.T.-54	SAMPLE TAP CARBON UNIT 6B	6B-ST-3
BFV-51	INFLUENT	6A-BFV-2
BFV-52	INFLUENT	6B-BFV-2
BFV-53	STAGING	6A-BFV-3
BFV-54	STAGING	6B-BFV-3
BFV-55	BACKWASH	6A-BFV-4
BFV-56	BACKWASH	6B-BFV-4
BFV-57	EFFLUENT	6A-BFV-5
BFV-58	EFFLUENT	6B-BFV-5
BFV-59	SPENT BACKWASH/VENT	6A-BFV-1
BFV-60	SPENT BACKWASH/VENT	6B-BFV-1

LOCATION

7A & 7B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-19	AIR VACUUM/PRESSURE RELIEF	7A-VPR-1
VPR-20	AIR VACUUM/PRESSURE RELIEF	7B-VPR-1
* 7A-VPR-2	AIR VACUUM/PRESSURE RELIEF	7A-VPR-2
* 7B-VPR-2	AIR VACCUM/PRESSURE RELIEF	7B-VPR-2
S.T.-55	SAMPLE TAP CARBON UNIT 7A	7A-ST-1
S.T.-56	SAMPLE TAP CARBON UNIT 7A	7A-ST-2
S.T.-57	SAMPLE TAP CARBON UNIT 7A	7A-ST-3
S.T.-58	SAMPLE TAP INFLUENT	7A-ST-4
S.T.-59	SAMPLE TAP INTERMEDIATE	7A-ST-5,7B-ST-5
S.T.-60	SAMPLE TAP EFFLUENT	7B-ST-4
S.T.-61	SAMPLE TAP CARBON UNIT 7B	7B-ST-1
S.T.-62	SAMPLE TAP CARBON UNIT 7B	7B-ST-2
S.T.-63	SAMPLE TAP CARBON UNIT 7B	7B-ST-3
BFV-61	INFLUENT	7A-BFV-2
BFV-62	INFLUENT	7B-BFV-2
BFV-63	STAGING	7A-BFV-3
BFV-64	STAGING	7B-BFV-3
BFV-65	BACKWASH	7A-BFV-4
BFV-66	BACKWASH	7B-BFV-4
BFV-67	EFFLUENT	7A-BFV-5
BFV-68	EFFLUENT	7B-BFV-5
BFV-69	SPENT BACKWASH/VENT	7A-BFV-1
BFV-70	SPENT BACKWASH/VENT	7B-BFV-1

LOCATION

8A & 8B

VALVE NO.	SERVICE	ASBUILT NO.
VPR-22	AIR VACUUM/PRESSURE RELIEF	8A-VPR-1
VPR-23	AIR VACUUM/PRESSURE RELIEF	8B-VPR-1
* 8A-VPR-2	AIR VACUUM/PRESSURE RELIEF	8A-VPR-2
* 8B-VPR-2	AIR VACCUM/PRESSURE RELIEF	8B-VPR-2
S.T.-64	SAMPLE TAP CARBON UNIT 8A	8A-ST-1
S.T.-65	SAMPLE TAP CARBON UNIT 8A	8A-ST-2
S.T.-66	SAMPLE TAP CARBON UNIT 8A	8A-ST-3
S.T.-67	SAMPLE TAP INFLUENT	8A-ST-4
S.T.-68	SAMPLE TAP INTERMEDIATE	8A-ST-5,8B-ST-5
S.T.-69	SAMPLE TAP EFFLUENT	8B-ST-4
S.T.-70	SAMPLE TAP CARBON UNIT 8B	8B-ST-1
S.T.-71	SAMPLE TAP CARBON UNIT 8B	8B-ST-2
S.T.-72	SAMPLE TAP CARBON UNIT 8B	8B-ST-3
BFV-71	INFLUENT	8A-BFV-2
BFV-72	INFLUENT	8B-BFV-2
BFV-73	STAGING	8A-BFV-3
BFV-74	STAGING	8B-BFV-3
BFV-75	BACKWASH	8A-BFV-4
BFV-76	BACKWASH	8B-BFV-4
BFV-77	EFFLUENT	8A-BFV-5
BFV-78	EFFLUENT	8B-BFV-5
BFV-79	SPENT BACKWASH/VENT	8A-BFV-1
BFV-80	SPENT BACKWASH/VENT	8B-BFV-1

"RECORD DRAWING"

JOB No. 62370.50 FILE No. T:\JUST5\PROJ\NEWMARK\ASBUILT\ 1P-12.DGN

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
	11/98	RECORD DRAWING			

REVISIONS

DESIGNED BY: PS

DRAWN BY: NDH

CHECKED BY: DHD

URS Consultants, Inc.
CONSULTING ENGINEERS
SACRAMENTO CALIFORNIA

JOB No. 62370

REGISTERED PROFESSIONAL ENGINEER No. 34557 Stephen R. Stefanchik EXP. 9/30/99 CIVIL STATE OF CALIFORNIA

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER
CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

WATERMAN PLANT
CARBON UNITS VALVE SCHEDULE

Scale: NO SCALE | Date: 6/97 | Dwg. No.: P-12

N

SCALE IN FEET
10' 0 10'

EXIST. 16" RAW WATER FROM WELL NO.4

EXIST. 8" DRAIN LINE

EXIST. 12" TREATED WATER

EXIST. 16" RAW WATER (FROM WELLS 2 & 3)

PLANTER
REMOVE EXIST. CHAINLINK FENCE & GATE - RELOCATE EXIST. FENCE & GATE. SEE SHT. C-15

DEMO LIMITS

EXIST. 16" TREATED WATER

REMOVE EXIST. 4" RAW WATER

EXIST. 12" RAW WATER

WELL NO.1

CONTROL & CHLORINE BUILDING

REMOVE EXISTING PAVEMENT

SAWCUT EXIST. PAVEMENT TO PROVIDE A CLEAN CUT. SEE DETAIL 2/C-13

EXIST. PAVEMENT TO REMAIN

61'-5"

EXIST. 30" CROSS

EXIST. 30" TEE

REMOVE EXIST. 16" RAW WATER.

EXIST. 30" RAW WATER

EXIST. 24" VALVE

24" STORMDRAIN

REMOVE EXIST. 4" RAW WATER.

REMOVE EXIST. 1" IRRIGATION

CHLORINE

EXIST. AIR STRIPPING TOWER

EXISTING RESERVOIR NO. 1

5" ASH, 5" ASH, 30" EUC., 5" ASH, 6" ASH, 5" ASH, 7" ASH, 14.4, 40" EUC., 5" ASH, 6" ASH, 7" ASH, 8" ACACIA, 7" ACACIA, 8" ASH, 6" SPRUCE, 13.7, 14" PINE, 9" ACACIA, 8" ASH, 8" ASH, 4" MAGNOLIA, 8" ACACIA, 8" ASH, 1415, 13.4, 36" EUC., 11.2, 11.6, 11.6, 11.2, 11.8, 11.7, 11.9, 12.1, 12.2, 15" CYPRESS, 10" CYPRESS, 9" OLIVE, 30" EUC., 10" EUC., 10" EUC., 30" BI-TRUNK EUC.

20" W
12" W

STORMWATER DRAINAGE CHANNEL

1. NEW 16" x 16" x 8" TEE w/ BLIND FLANGE
2. NEW 16" FLANGE w/ 1'-0" GAP FOR SPOOL & BLIND FLANGE
3. NEW TEE TO MATCH EXISTING w/ 1" CAP
4. NEW TEE TO MATCH EXISTING w/ 1" CAP
5. NEW 4" FLANGED CONNECTION w/ BLIND FLANGE
6. NEW 4" FLANGED CONNECTION w/ BLIND FLANGE

LEGEND :

- EXISTING BURIED PIPING
- EXIST. PIPING TO BE REMOVED OR ABANDONED
- EXISTING FENCE
- (1) CITY TO PROVIDE REQUIRED CONNECTION FOR NEW PIPING

NOTES :

1. THE CITY WILL DIRECT THE REMOVAL OF THE TREES WITHIN THE AREAS OF THE CARBON TREATMENT SYSTEM CONCRETE PADS, ASPHALT ROAD AREAS, AND IN ANY AREA REQUIRED FOR CONSTRUCTION OR CARBON SYSTEM MAINTENANCE ACCESS.
   TREE STUMPS SHALL BE REMOVED AND THE AREA FILLED AND COMPACTED TO MATCH ADJACENT AREAS.
2. CONTRACTOR TO COORDINATE WITH THE CITY THE DEMOLITION OF EXISTING PIPING AND NEW CONNECTIONS.
3. NEW PIPING SHOWN ON SHEET C-3 AND C-6.
4. CONCRETE PAD SHOWN ON SHEET S-1.

"RECORD DRAWING"

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
	11/98	RECORD DRAWING			

REVISIONS

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DRAWN BY: NDH
CHECKED BY: DHD

URS Consultants, Inc.
CONSULTING ENGINEERS
SACRAMENTO CALIFORNIA

JOB No. 62370

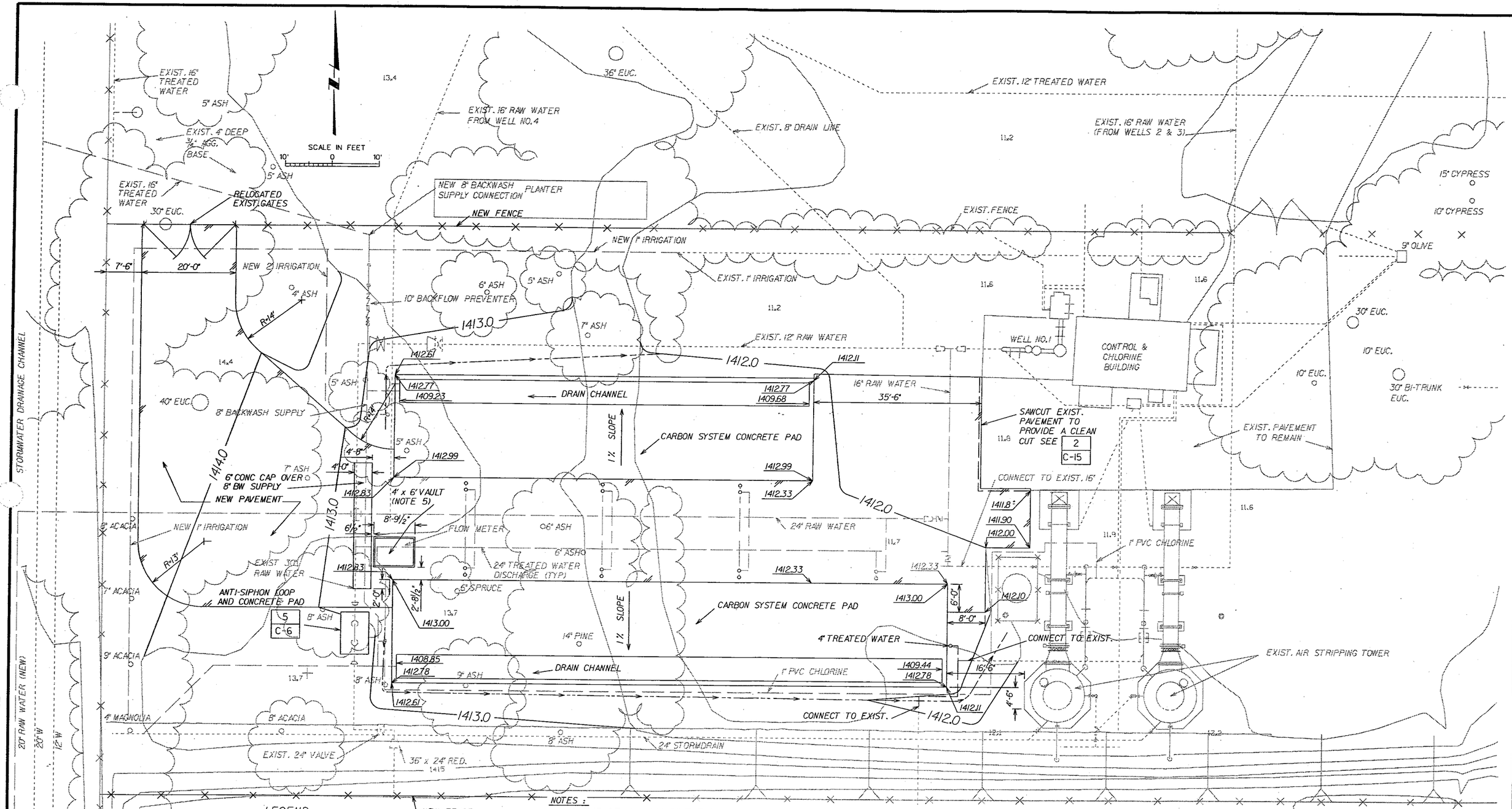
REGISTERED PROFESSIONAL ENGINEER No. 34051 EXP. 9/30/99 CIVIL STATE OF CALIFORNIA

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

NORTH PLANT
DEMOLITION PLAN

Scale: AS NOTED | Date: 6/97 | Dwg. No.: C-1

JOB No. 62370.50
FILE No. T:\DIST5\PROJ\NEWMARK\ASBUILT\ C-1.DGN



LEGEND :

- NEW BURIED PIPING
- EXISTING BURIED PIPING
- EXISTING FENCE
- NEW DRAINAGE FLOW LINE

NOTES :

1. THE CITY WILL DIRECT THE REMOVAL OF THE TREES WITHIN THE AREAS OF THE CARBON TREATMENT SYSTEM CONCRETE PADS, ASPHALT ROAD AREAS, AND IN ANY AREA REQUIRED FOR CONSTRUCTION OR CARBON SYSTEM MAINTENANCE ACCESS. TREE STUMPS SHALL BE REMOVED AND THE AREA FILLED AND COMPACTED TO MATCH ADJACENT AREAS.
2. CONTRACTOR TO COORDINATE WITH THE CITY THE DEMOLITION OF EXISTING PIPING AND MAKING OF NEW CONNECTIONS.
3. NEW PIPING SHOWN ON SHEET C-3 AND C-6.
4. CONCRETE PAD SHOWN ON SHEET S-1.
5. PRECAST CONCRETE VAULT - CHRISTY B52 w/ TORSION ASSIST TRAFFIC LID. OR APPROVED EQUAL.

"RECORD DRAWING"

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
	11/98	RECORD DRAWING			

REVISIONS

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DRAWN BY: NDH
CHECKED BY: DHD

URS Consultants, Inc.
CONSULTING ENGINEERS
SACRAMENTO CALIFORNIA

JOB No. 62370

REGISTERED PROFESSIONAL ENGINEER No. 34557 Dwayne R. Deutschel EXP. 9/30/99 CIVIL STATE OF CALIFORNIA

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

NORTH PLANT
SITE GRADING AND PAVING

Scale: AS NOTED | Date: 9/97 | Dwg. No.: C-2

JOB No. 62370.50
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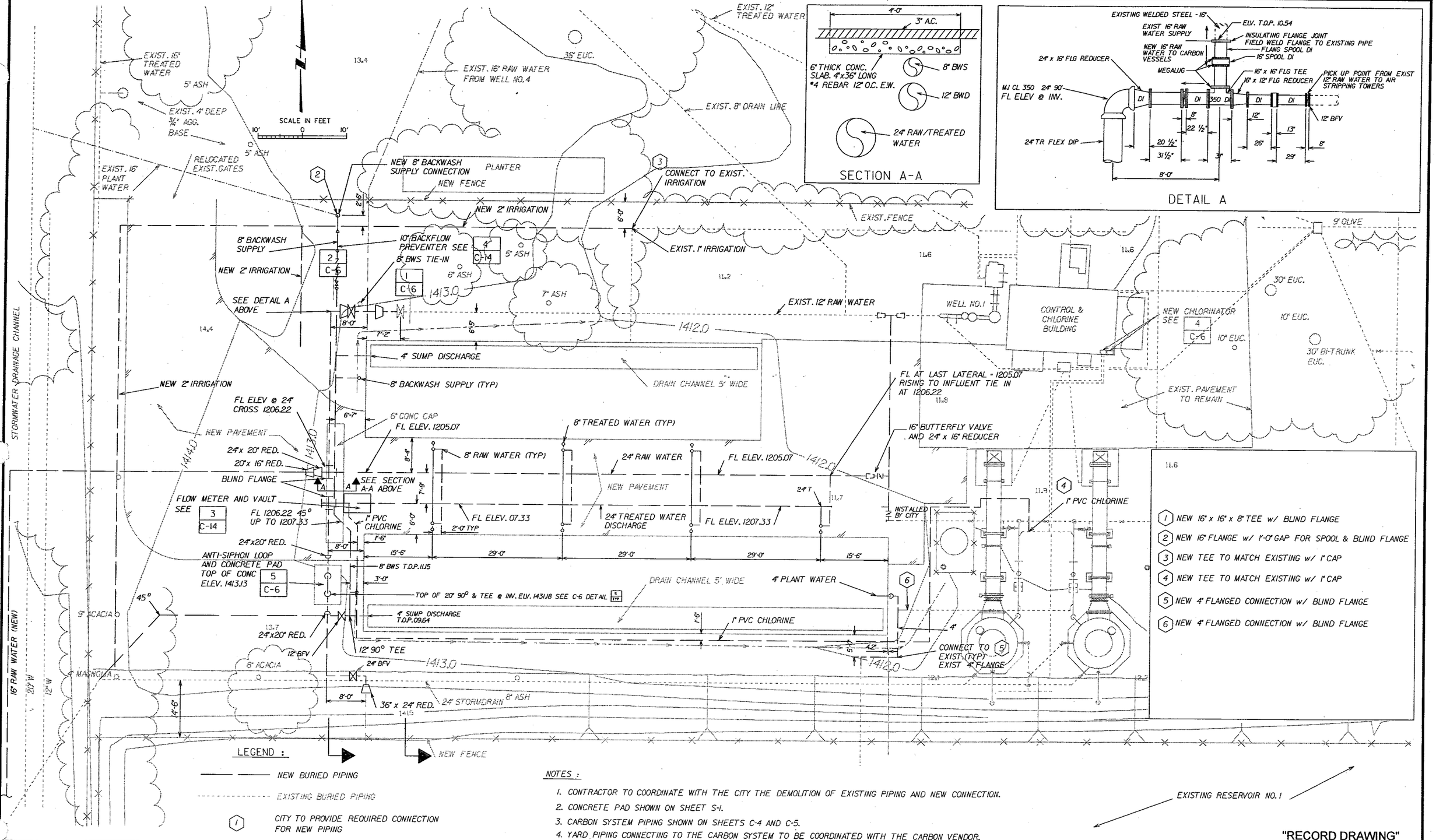

"RECORD DRAWING"

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
	11/98	RECORD DRAWING			

REVISIONS

DESIGNED BY: PS
DRAWN BY: NDH
CHECKED BY: DHD

URS Consultants, Inc.
CONSULTING ENGINEERS
SACRAMENTO CALIFORNIA

JOB No. 62370

REGISTERED PROFESSIONAL ENGINEER — No. 34557 — Evelyn H. Deutscher — EXP. 9/30/99 — CIVIL — STATE OF CALIFORNIA

NEWMARK OU REMEDIAL DESIGN
NEWMARK GROUNDWATER CONTAMINATION SUPERFUND SITE
NORTH & SOUTH PLANTS

NORTH PLANT
YARD PIPING

Scale: AS NOTED | Date: 9/97 | Dwg. No.: C-3

JOB No. 62370.50 No. T:\UST5\PROJ\NEWMARK\ASBUILT\ C-3C.DGN rename